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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/610,960	06/30/2003	Ramin Shahidi	52755-8003.US02	4157

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EXAMINER

MANTIS MERCADER, ELENI M

ART UNIT	PAPER NUMBER
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3737

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/610,960

Applicant(s)

SHAHIDI, RAMIN

Examiner

Eleni Mantis Mercader

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Double Patenting*

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Claims 1-9 provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-9 of copending Application No.09/792,485. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented. The claims of the co-pending applications are identical.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Der Brug et al.'127 in view of Glassman et al.'288 and Yanof et al.'904.

Van Der Burg et al. teach an image-guided surgery system and method for determining the optimal point of entry of a surgical tool including: a multi-segmented articulated arm (6), a

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tracking controller (10/11) and image memory containing pre-operative image data (13). Instead of using an actuator, the surgeon manually adjusts the position of the arm in the direction of the target. Van Der Brug et al. do not teach a means for maintaining constant pressure and do not specifically address a computer readable medium.

Glassman et al. teach an image-guided robotic surgery system and method including: a multi-segmented articulated arm (14), a tracking controller (28), a pre-operative CT system (52), and an actuator (54) for automatically adjusting the position of the mechanical arm in response to feedback from a CT system, the tracking system and force monitoring sensor (53). Glassman et al. further teach software (col. 3, lines 40-57 and col. 5, lines 20-30) for automatically controlling the robotic arm. It would have been obvious to one skilled in the art at the time that the invention was made to use an automated means for positioning an articulated arm as taught by Glassman et al. in the invention as taught by Van Der Brug et al. to provide a quicker means for precisely positioning a surgical tool in response to multi-variate feedback.

It would have been obvious to one skilled in the art to use computerized software for controlling the actuator as taught by Glassman et al. in the invention as taught by Van Der Brug et al. to allow for positioning of articulated arm with a high degree of accuracy and versatility.

It would have been obvious to one skilled in the art at the time that the invention was made to maintain consistent pressure on the target using the force monitor sensor as taught by Glassman et al. so as to consistently and predictably advance the tool within specific tissue.

Van Der Brug et al. in view of Glassman do not teach providing an image of the target site and intervening tissue along the alignment trajectory.

In the same field of endeavor, Yanof et al.'904 teach viewing the target site and intervening tissue, along a trajectory from a selected position to the target, allowing the surgeon to optimally select the route or path of the surgical tool prior to making an incision, in order to allow the surgeon to choose the least detrimental path to a target region (see in particular Figures 4 and 5 and col. 7, lines 20-67 and col. 8, lines 1-43).

It would have been obvious to one skilled in the art at the time that the invention was made to have modified Van Der Brug et al. in view of Glassman and incorporated the teachings of Yanof et al.'904 in order to allow the surgeon the flexibility of choosing the best trajectory of insertion of the surgical instrument to choose the least detrimental path to the target region avoiding bone and damage to soft tissue such as arteries and the lungs (for motivation to combine see in Yanof et al.'904, col. 8, lines 38-43).

### *Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Paltieli'029 teaches free-hand aiming of a needle guide.

Wessels et al.'312 teach determining movement of an organ.

Carol et al.'288 teach a method for stereotactic procedures.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni Mantis Mercader whose telephone number is (571) 272-4740. The examiner can normally be reached on Mon. - Fri., 8:00 a.m.-6:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on (571) 272-4956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eleni Mantis Mercader  
Primary Examiner  
Art Unit 3737

EMM